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09/756,493	01/08/2001	Hirotoshi Takemori	70551/55523	4293

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EXAMINER	
ORTIZ CRIADO, JORGE L	

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/756,493	TAKEMORI ET AL.	
	Examiner	Art Unit	
	Jorge L. Ortiz-Criado	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date [redacted]
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1 and 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay et al. U.S. Patent No. 5,544,143 in combination with Nakao et al. U.S. patent No. 6,272,097 and further in view of Mori et al. U.S. Patent No. 4,400,062.

Regarding claim 1, Kay et al. discloses an integrated unit (See col. 4, lines 35-37; Fig. 1, ref # 30), comprising:

a laser beam source for emitting a laser beam (See col. 4, lines 45-47; Fig. 1, ref. # 40);

a detecting portion for detecting reflection of said emitted laser beam(See col. 6, lines 13-14; Fig. 1, ref. # 68);

optical elements for controlling the pathways defined by said emitted laser beam and said reflection thereof (See col. 4, lines 25-28; Fig. 1) ,

said optical elements including at least a diffraction element for diffracting said emitted laser beam and said reflection thereof (See col. 4, lines 47-50; Fig. 1, ref. # 42)

and a casing accommodating said laser beam source and said detecting portion (See col. 4, lines 35-37; Fig. 1, ref. # 30,32),and

a transparent optical compensation film being formed integrally with one of said optical elements or with an end of said casing so as to be disposed in said optical pathways defined by said emitted laser beam and said reflection thereof (See col. 4, lines 33 to col. 5, lines 1-35; Fig. # 1, ref. # 34).

Kay et al. further teaches wherein the light could have other circular or other polarizations by another optical compensation element included in the pathways of the optical elements (See col. 4, line 61 to col. 5, line2).

But Kay et al. does not expressly disclose the transparent optical compensation film to circularizing the polarization of light passing therethrough such that light exiting therefrom is circularly or elliptically polarized.

However, this feature is well known in the art as evidenced by Nakao et al., which discloses an integrated unit having an optical single layer compensation film formed integrally with other optical elements (See col. 4, lines 14-17; Fig. 1, ref# 7) for circularizing the polarization of light passing therethrough such that light exiting therefrom is circularly polarized (See col. 4, lines 44-47)

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to integrally include the compensation film to circularizing the polarization of light passing therethrough in order to obtain a small integrated unit by a simple manufacturing process, as suggested by Nakao et al.

But Kay et al. in combination with Nakao et al. does not expressly disclose that the compensation film comprises a uniaxially-stretched or biaxially-stretched polyolefin-type polymer film.

However, this feature is well know in the art as evidenced by Mori et al., which teaches a compensation element included in the pathways of the optical elements of an optical pickup comprising a compensation film uniaxially-stretched or biaxially-stretched **single layer** polyolefin-type polymer film characterized by ("a first type of film index ellipsoid/uniaxially or biaxially stretched"), "said **single layer** polyolefin-type polymer film characterized by said first type of film index ellipsoid having been formed by uniaxially stretched or biaxially stretching a polyolefin-type polymer film characterized by a film index ellipsoid of a different type from said first type of film index ellipsoid such that said film index ellipsoid of said different type from said first type of film index ellipsoid is changed into said first type of film index ellipsoid by said stretching", function of changing polarization state of the laser beam (See col. 1, line 10 to col. 2, line 51).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a compensation film of single layer high polymer film in order to effectively obtain the function of changing polarization state of the laser beam entering to the optical storage medium, as taught by Mori et al.

Regarding claim 3, the combination of Kay et al. with Nakao et al. and Mori et al., would show wherein said optical compensation film is attached onto said diffraction element (See Kay et al., Fig. 1, ref # 34,42)

Regarding claim 4, the combination of Kay et al. with Nakao et al. and Mori et al. would show including said optical compensation film inside of said diffraction element (See Kay et al., col. 5, lines 15-19).

Regarding claim 5, the combination of Kay et al. with Nakao et al. and Mori et al. would show wherein said casing and said optical compensation film are integrated (See Kay et al., Fig. 1, ref # 30,32,34).

Regarding claim 6, the combination of Kay et al. with Nakao et al. would and Mori et al. would show including a cap member, provided to said casing, for closing an opening (See Kay et al., Fig. 1, ref. # 65).

Regarding claim 7, the combination of Kay et al. with Nakao et al. and Mori et al. would show wherein said cap member and an optical compensation film are integrated (See Kay et al., Fig. 1, ref. # 34,65).

Regarding claim 8, the combination of Kay et al. with Nakao et al. and Mori et al. would show wherein said diffraction element has a diffraction pattern for diffracting a laser beam, said diffraction pattern being formed on said optical compensation film (See Kay et al., col. 5, lines 3-22).

Regarding claim 9, the combination of Kay et al. with Nakao et al. and Mori et al. would show wherein said diffraction element has a diffraction pattern for diffracting a laser beam, said

optical compensation film being formed on said diffraction pattern (See Kay et al., col. 5, lines 3-22).

Regarding claim 10, Kay et al. discloses an optical pickup for reading information recorded on an optical disk by condensing a laser beam onto the optical disk (See col. 1, lines 24-30; col. 4, lines 33-47), comprising):

a laser beam source for emitting a laser beam (See col. 4, lines 45-47; Fig. 1, ref. # 40);

a detecting portion for detecting a reflection of said emitted laser beam (See col. 6, lines 13-14; Fig. 1, ref. # 68);

optical elements for controlling the pathways defined by said emitted laser beam and said reflection thereof (See col. 4, lines 25-28; Fig. 1),

said optical elements including at least a diffraction element for diffracting said emitted laser beam and said reflection thereof (See col. 4, lines 47-50; Fig. 1, ref. # 42);

a casing accommodating said laser beam source and said detecting portion (See col. 4, lines 35-37; Fig. 1, ref. # 30,32),

and integrated unit in which said diffraction element and said casing are integrated (See col. 4, lines 33-47 to col. 5, lines 1-35; Fig. # 1, ref. # 30,32,42)

an objective lens for condensing the laser beam onto the optical disk (See Fig. 1, ref. # 52),

a transparent optical compensation film being formed integrally with one of said elements or with an end of said casing so as to be disposed in said optical pathways defined by said

emitted laser beam and said reflection thereof (See col. 4, lines 33 to col. 5, lines 1-35; Fig. # 1, ref. # 34).

Kay et al. further teaches wherein the light could have other circular or other polarizations by another optical compensation element included in the pathways of the optical elements (See col. 4, line 61 to col. 5, line2).

But Kay et al. does not expressly disclose the transparent optical compensation film to circularizing the polarization of light passing therethrough such that light exiting therefrom is circularly or elliptically polarized.

However, this feature is well known in the art as evidenced by Nakao et al., which discloses an integrated unit having an optical single layer compensation film formed integrally with other optical elements (See col. 4, lines 14-17; Fig. 1, ref# 7) for circularizing the polarization of light passing therethrough such that light exiting therefrom is circularly polarized (See col. 4, lines 44-47)

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to integrally include the compensation film to circularizing the polarization of light passing therethrough in order to obtain a small integrated unit by a simple manufacturing process, as suggested by Nakao et al.

But Kay et al. in combination with Nakao et al. does not expressly disclose that the compensation film comprises a uniaxially-stretched or biaxially-stretched polyolefin-type polymer film.

However, this feature is well know in the art as evidenced by Mori et al., which discloses compensation element included in the pathways of the optical elements of an optical pickup

comprising a compensation film uniaxially-stretched or biaxially-stretched single layer polyolefin-type polymer film characterized by ("a first type of film index ellipsoid/uniaxially or biaxially stretched"), "said single layer polyolefin-type polymer film characterized by said first type of film index ellipsoid having been formed by uniaxially stretched or biaxially stretching a polyolefin-type polymer film characterized by a film index ellipsoid of a different type from said first type of film index ellipsoid such that said film index ellipsoid of said different type from said first type of film index ellipsoid is changed into said first type of film index ellipsoid by said stretching", function of changing polarization state of the laser beam (See col. 1, line 10 to col. 2, line 51; col. 3, line 42 to col. 4, line 43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a compensation film of high polymer film in order to effectively obtain the function of changing polarization state of the laser beam entering to the optical storage medium, as taught by Mori et al.

Regarding claim 11, Kay et al. discloses an optical pickup for reading information recorded on an optical disk by condensing a laser beam onto the optical disk (See col. 4, lines 33-35; Fig. 1), comprising:

a laser beam source for emitting a laser beam (See col. 4, lines 45-47; Fig. 1, ref. # 40);

a detecting portion for detecting a reflected light (See col. 6, lines 13-14; Fig. 1, ref. # 68);

a diffraction element for diffracting the laser beam (See col. 4, lines 47-50; Fig. 1, ref. # 42);

a casing accommodating said laser beam source and said detecting portion (See col. 4, lines 35-37; Fig. 1, ref. # 30,32);

an integrated unit in which said diffraction element and said casing are integrated (See col. 4, lines 33 to col. 5, lines 1-35; Fig. 1, ref # 30,32,42);

an objective lens for condensing the laser beam onto the optical disk (See Fig. 1, ref. # 52);

and a reflection mirror for changing a direction of the laser beam,

wherein said reflection mirror is integrated with a transparent optical compensation film a (See col. 6, lines 18-24; Fig. 1, ref. # 34,64).

Kay et al. further teaches wherein the light could have other circular or other polarizations by another optical compensation element included in the pathways of the optical elements (See col. 4, line 61 to col. 5, line2).

But Kay et al. does not expressly disclose the transparent optical compensation film to circularizing the polarization of light passing therethrough such that light exiting therefrom is circularly or elliptically polarized.

However, this feature is well known in the art as evidenced by Nakao et al., which discloses an integrated unit having an optical single layer compensation film formed integrally with other optical elements (See col. 4, lines 14-17; Fig. 1, ref# 7) for circularizing the polarization of light passing therethrough such that light exiting therefrom is circularly polarized (See col. 4, lines 44-47)

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to integrally include the compensation film to circularizing the polarization of light passing therethrough in order to obtain a small integrated unit by a simple manufacturing process, as suggested by Nakao et al.

But Kay et al. in combination with Nakao et al. does not expressly disclose that the compensation film comprises a uniaxially-stretched or biaxially-stretched polyolefin-type polymer film.

However, this feature is well know in the art as evidenced by Mori et al., which discloses compensation element included in the pathways of the optical elements of an optical pickup comprising a compensation film uniaxially-stretched or biaxially-stretched single layer polyolefin-type polymer film characterized by ("a first type of film index ellipsoid/uniaxially or biaxially stretched"), "said single layer polyolefin-type polymer film characterized by said first type of film index ellipsoid having been formed by uniaxially stretched or biaxially stretching a polyolefin-type polymer film characterized by a film index ellipsoid of a different type from said first type of film index ellipsoid such that said film index ellipsoid of said different type from said first type of film index ellipsoid is changed into said first type of film index ellipsoid by said stretching", function of changing polarization state of the laser beam (See col. 1, line 10 to col. 2, line 51; col. 3, line 42 to col. 4, line 43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a compensation film of high polymer film in order to effectively obtain the function of changing polarization state of the laser beam entering to the optical storage medium, as taught by Mori et al.

Response to Arguments

Applicant's arguments filed 04/27/2005 have been fully considered but they are not persuasive.

In regard to claims 1, 10 and 11 applicants argue that Mori et al. does not disclose, teach or suggest that polyolefin-type polymer film can be made to function as wave plate by uniaxially or biaxial stretching.

The examiner disagrees with the applicant assertion because Mori et al. clearly discloses having an uniaxially stretched **wavelength plate** of a "polyolefin-type" polymer film (See col. 1, line 10 to col. 2, line 51)

Applicant argues that the amendment **makes it clear** that **only a single** polyolefin-type polymer film is contemplated by the present invention, not the stacked structure of Mori et al.

The examiner cannot concur because Mori et al. teaches the an uniaxially or biaxially stretched **wavelength plate** of **only a single** polyolefin-type polymer film (see col. 1, lines 22-48)

Applicant argues specifying in the amendment that the polyolefin-type polymer film as claimed is a film wherein the original film ellipsoid type has been change into a different ellipsoid type by uniaxially or biaxially stretching clearly the film claimed is not the same as the manufactured film of Mori et al.

The examiner cannot concur because the index ellipsoid is merely the result of uniaxially or biaxially **stretching**, also as acknowledge by Applicant (see page 11 of response filed 11/10/2004), as taught by Mori et al. (see cited parts)

In regard to the features process of making by **been formed** by uniaxially stretched or biaxially stretching a polyolefin-type polymer film characterized by a film index ellipsoid of a different type from said first type of film index ellipsoid such that said film index ellipsoid of said different type from said first type of film index ellipsoid is changed into said first type of film index ellipsoid by said stretching

A "**product by process**" claim is directed to **the product per se, no matter how actually made**, see In re Hirao, 190 USPQ 15 at 17 (footnote 3, CCPA, 5/27/76); In re Brown, 173 USPQ 685 (CCPA 5/18/72); In re Luck, 177 USPQ 523 (CCPA, 4/26/73); In re Fessmann, 180 USPQ 324 (CCPA, 1/10/74); In re Thorpe, 227 USPQ 964 (CAFC, 11/21/85).

The patentability of the final product in a "product by process" claim must be determined **by the product itself** and **not the actual process** and an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not.

Applicant argues that none of the reference alone teaches or suggests the present claimed invention.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

joc

W. R. YOUNG
PRIMARY EXAMINER